

Aug 9, 2024&ensp;&#0183;&ensp;The energy consumption of communication base stations has been increasing, while energy conservation has become a focal point, especially for the air conditioning ...

May 4, 2024&ensp;&#0183;&ensp;5G base stations are categorized into micro base stations, macro base stations, and indoor sub-systems based on their transmit power and coverage. As 5G operates at a ...

Nov 30, 2024&ensp;&#0183;&ensp;We propose a method for minimizing the energy consumption of the wireless communication network, subject to cell load constraints that prevent cells from being unable to ...

Feb 1, 2021&ensp;&#0183;&ensp;This survey specifically covers a variety of energy efficiency techniques, the utilization of renewable energy sources, interaction with the smart grid (SG), and the ...

Feb 24, 2023&ensp;&#0183;&ensp;With the rapid development of mobile communication, the major operators speed up the pace of network construction, the number of base stations increases significantly, the ...

Oct 21, 2022&ensp;&#0183;&ensp;5G communication technologies are expected to provide high rate and low delay services. To meet the requirements, more base stations (BS), including macrocell BS (MacBS) ...

Nov 25, 2024&ensp;&#0183;&ensp;Abstract. In order to solve high energy consumption caused by massive micro base stations deployed in multi-cells, a joint beamforming and power allocation optimization ...

Mar 23, 2023&ensp;&#0183;&ensp;Not only the phase and frequency of radio frequency (RF) signals are modulated, but also the amplitude is modulated [1]. Therefore, the RF signal in the modern communication ...

Mar 31, 2024&ensp;&#0183;&ensp;Therefore, in response to the impact of communication load rate on the load of 5G base stations, this paper proposes a base station energy storage auxiliary power grid peak ...

Jun 9, 2024&ensp;&#0183;&ensp;1. Introduction Recently, with the rapid development of wireless communication technology, the enhancement of wireless network performance is concerned with meeting the ...

Mar 17, 2025&ensp;&#0183;&ensp;Signal coverage quality and strength distribution in complex environments pose severe challenges, leading to the inadequacy of traditional two-dimensional base station ...

Feb 25, 2024&ensp;&#0183;&ensp;Renewable energy base stations, generating energy from sources like sunlight and wind, are introduced. To optimize renewable energy usage, micro-stations operate in non ...

